

Screening Libraries

Proteins



Product Data Sheet

CHAC1 Protein, Human (His, Strep)

Cat. No.: HY-P701946

Synonyms: CHAC1; Glutathione-specific gamma-glutamylcyclotransferase 1; Gamma-GCG 1; Blocks Notch

protein; Botch; Cation transport regulator-like protein 1

Species: Human Source: E. coli

Accession: Q9BUX1 (K2-V222)

Gene ID: 79094

Molecular Weight:

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background

CHAC1, a key player in cellular processes, catalyzes the cleavage of glutathione into 5-oxo-L-proline and a Cys-Gly dipeptide, exhibiting specificity for glutathione over other gamma-glutamyl peptides. Its enzymatic action on glutathione is crucial as glutathione depletion is a significant factor in apoptosis initiation and execution. CHAC1 further serves as a pro-apoptotic component within the unfolded protein response pathway, mediating the effects of the ATF4-ATF3-DDIT3/CHOP cascade. Additionally, CHAC1 functions as a negative regulator of the Notch signaling pathway, impacting embryonic neurogenesis by inhibiting Notch cleavage through furin. This inhibition maintains Notch in an immature, inactive form, thereby promoting neurogenesis in embryos.

Caution: Product has not been fully validated for medical applications. For research use only.

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